MARKET MARGINS

In Market Margins, the Statistics Branch of Alberta Agriculture presents information on the distribution of the consumer's food dollar. Prices for various agricultural commodities are collected at three levels in the marketing chain; producer, wholesale and retail. Due to processing activity, the food item purchased by the consumer is in a form different from the product leaving the farm gate. As a result of processing and other marketing functions (transportation, packaging, advertising, etc.) performed at the wholesale and retail level, the price of the product at each market level will be different. In order to compare producer, wholesale and retail prices, the value of by-products in processing is deducted and the quantity of farm products required to produce the end consumer product calculated. For example, the value of by-products such as hides and fats used in the manufacture of other end by-products is deducted; in the baking of bread the proportions of farm products required to produce a loaf of bread must be determined. By making these adjustments, producer, wholesale and retail prices can be compared on a retail equivalent basis. The difference in retail equivalent prices at each level known as a price spread, is tabulated to observe changes in producer's, wholesaler's and retailer's share of the consumer's food dollar.

In this issue of Market Margins, the results of the information collected will be summarized for four main commodities; milk, beef, pork and bread. The reader is referred to previous issues for more details concerning the methodology.

Cautionary Note

Changes in spreads do not necessarily indicate an increase or decrease in the profitability at the various market levels. Costs are not included, thus profitability cannot be established. In addition, Market Margins looks at specific products and adjusts commodities sold at each level to a retail equivalent basis. In doing so, by-products are created which have value and contribute to value of production at each market level.

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October 1986

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BREAD

The methodology used in calculating bread price spreads was designed to determine price spreads for a 20 oz. loaf of sliced white bread. Due to the disparity in retail prices between private and store brand white breads, prices and price spreads were calculated for each separately. The baking of store brand breads is done by the retail store and not by private bakeries as is private label breads. Three market levels are recognized in determining price spreads for store brand; the producer, the processor and the retail outlet. These three market levels, in addition to private bakeries, are included in price spread estimation of private label breads.

Prices

At the producer level, the producer value for bread flour, rapeseed shortening, sugar beets for sugar and industrial milk for skim milk powder are estimated to determine the producer price of agricultural products used in baking bread (Table 1). In 1985, producer prices for #1 CWRS wheat averaged $8.04/100 loaves, down 4.3 per cent from the revised value of $8.40/100 loaves in 1984. The decline is attributed to anticipated lower realized payments for the 1985/86 crop deliveries. Returns to producers for industrial milk increased $0.07/100 loaves (+2.7%) to $2.62/100 loaves from the 1984 value of $2.55/100 loaves, while world sugar prices continued to depress sugar returns, yielding $0.24/100 loaves in 1985, down 14.3 per cent from 1984. Abundant world supplies of oilseeds and edible oils in 1984/85 depressed Alberta canola prices. Domestic canola prices declined by 18 per cent in 1985, lowering returns to producers. Producer returns for canola declined $0.19/100 loaves (-19%) from $0.99/100 loaves in 1984 to $0.80/100 loaves in 1985. Total returns to producers in 1985 for these products averaged $11.71/100 loaves, down 4.2 per cent from $12.22 in 1984.

Returns to processors (Table 1) for flour, skim milk powder, shortening and sugar, increased 5.2 per cent in 1985 to $21.90/100 loaves. Millers[1] received $16.79/100 loaves, an increase of $1.04/100 loaves (+6.6%) for flour, dairies $3.15/100 loaves for skim milk powder, up 2.3 per cent from 1984 and processors of shortening $1.49/100 loaves, a decline of 2 per cent from $1.52/100 loaves. There appears to be no change in the price for sugar refiners between 1984 and 1985.

Retail prices for store label bread increased gradually from February 1985 peaking in June at $94.80/100 loaves (Graph 1). Average prices declined in the third and fourth quarters. For the year, store label brands averaged $90.99/100 loaves, $3.70 (+4.2%) higher than in 1984. (Table 2)

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[1] (Prices paid by millers for wheat are regulated by the Canadian Wheat Board under the Federal government's domestic wheat pricing policy.)

Private label bread prices at the retail level followed a different pattern than store label bread. Prices declined in the second quarter but increased in the third and fourth quarters, peaking at $131.56/100 loaves in December.

Private label retail prices averaged $112.54/100 loaves in 1985, an increase of $8.69 (+8.4%) from 1984.

TABLE 1

PRICE TO PRODUCERS FOR INGREDIENTS, 1985[1]
(Dollars per 100 loaves)

	#1 CWRS Wheat	Industrial Milk	Canola	Sugar Beets	Total
1st Quarter 1985	8.20	2.60	.84	.25	11.89
2nd Quarter 1985	8.20	2.60	.90	.23	11.93
3rd Quarter 1985	7.94	2.63	.78	.23	11.58
4th Quarter 1985	7.81	2.66	.69	.26	11.42
Year 1985	8.04[e]	2.62	.80	.24	11.71[e]
Year 1984	8.40[r]	2.55	.99	.28	12.22[r]

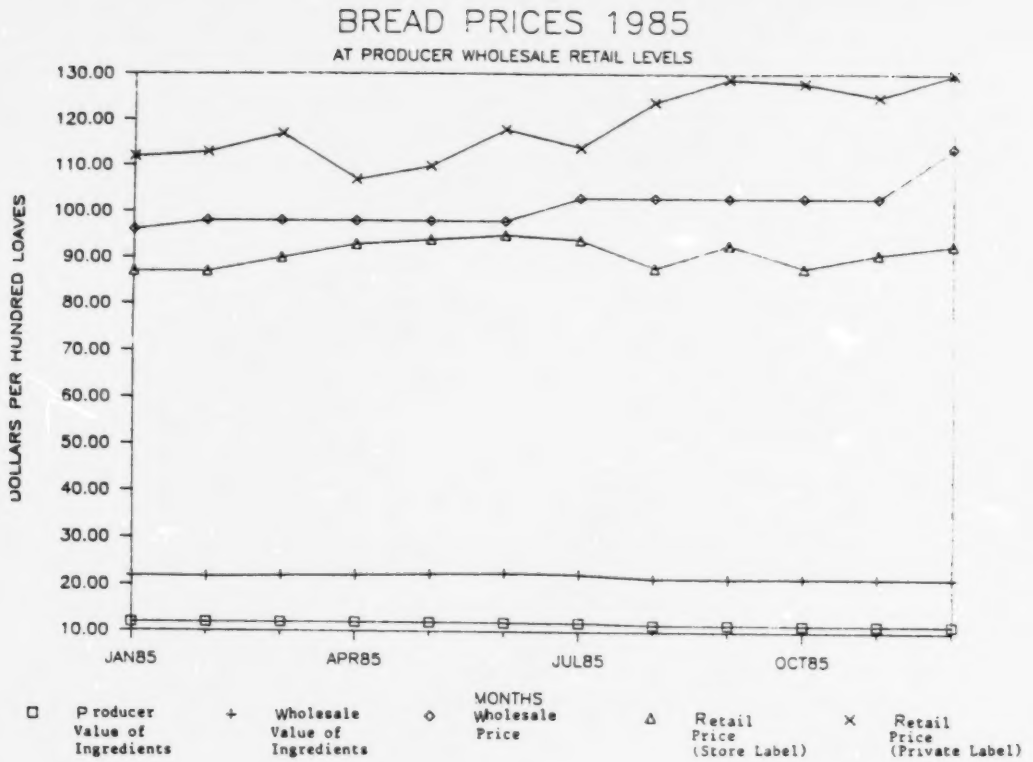
PRICE TO PROCESSORS FOR INGREDIENTS, 1985
(Dollars per loaf)

	Flour	Skim Milk Powder	Shortening	Sugar	Total
1st Quarter 1985	16.76	3.12	1.53	0.46	21.87
2nd Quarter 1985	17.25	3.12	1.59	0.44	22.40
3rd Quarter 1985	16.62	3.17	1.48	0.47	21.74
4th Quarter 1985	16.54	3.20	1.34	0.49	21.57
Year 1985	16.79	3.15	1.49	0.47	21.90
Year 1984	15.75	3.08	1.52	0.47	20.81

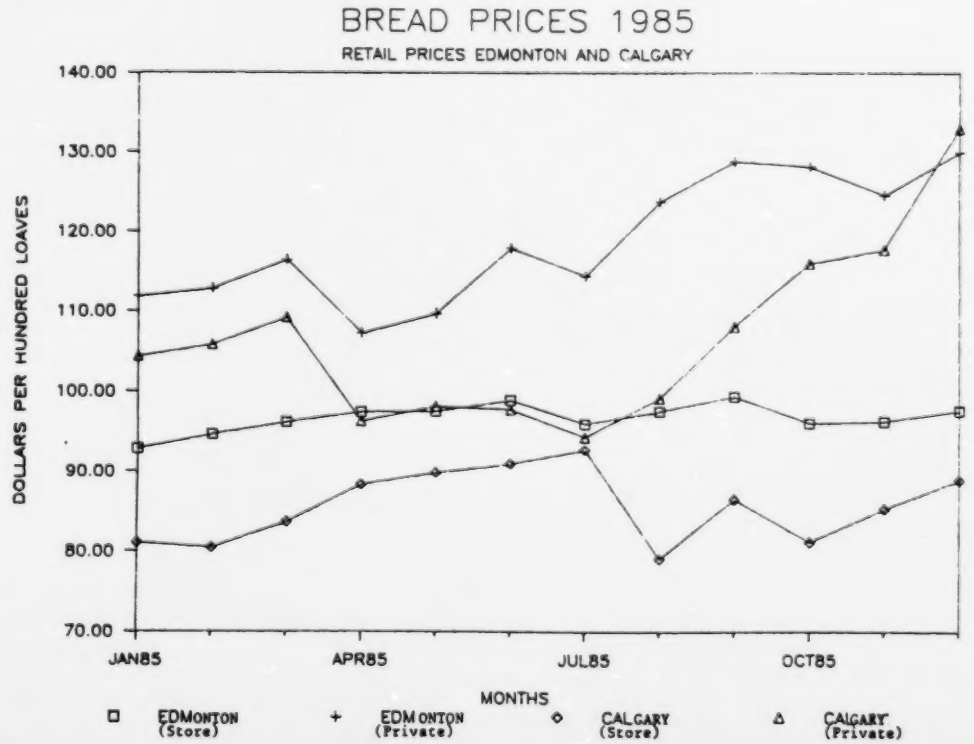
e estimated final payment included
r revised
1 Retail equivalent prices at producer and processor levels.

Calgary and Edmonton prices for store label brands varied significantly in 1985, while private label brands followed similar trends. Edmonton store label breads were consistently higher priced throughout the year. Calgary store label brands averaged $85.69/100 loaves as compared to $96.72/100 loaves in Edmonton. Edmonton private label brands were also higher than in Calgary throughout the year, except in December. Calgary prices averaged $106.70/100 loaves compared to $118.84/100 loaves in Edmonton.

GRAPH 1



GRAPH 2



Spreads and Share

The producer-retail spread for private label bread increased $9.20 (+10%) to $100.83/100 loaves in 1985 while the increase in spread for store label bread was $4.22 (+5.6%). The producer-processor spread increased $1.60 (+18.6%) for both private and store label bread in 1985. Processor-retail spreads increased $7.61/100 loaves and $2.62/100 loaves for private and store labels respectively. The larger increase in producer-retail spreads for private label bread compared to store label bread contributed to the larger increase in producer-retail spreads.

Table 2 indicates the distribution of the consumer's bread dollar in 1985. The producer's share[2] declined 1.3 percentage points to 10.5% for private label bread and 1.1 percentage points to 12.9% for store label bread.

The processor's share increased from 8.2% to 9.1% for private label breads and went up from 9.8% to 11.2% for store label breads. The producer-processor spread widened in 1985 as a result of declining producer prices and an increase in processor prices. The 18.6% increase in producer-processor spread exceeded the increase in retail prices for both private and store label breads, thus raising the processor's share.

Despite increases in the retail price of bread, retailer's share dropped 0.3 percentage points to 9.8% for private label and 0.3 percentage points to 75.9% for store labels. Processors absorbed the increase in share of store label retail prices. For private label breads, both processors and wholesale/bakers increased their share of the retail price. The wholesale share of the retail price for private label increased 0.8 percentage points to 70.6% as the increase in processors-bakery spread was more than the increase in the retail price.

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[2] (It is important to note that although producer and processor shares are larger for store label bread than private label, the monies received are the same. As private and store label prices differ, the producer's and processor's per cent share must vary accordingly.)

TABLE 2

QUARTERLY BREAD PRICES, SPREADS AND SHARE, 1985[1]
(Dollars per 100 loaves)

	Producer Price	Processor Price	Wholesale/ Baker Price	Retail Prices	
				Private Label	Store Label
1st Quarter 1985	11.89	21.87	97.33	109.9	87.89
2nd Quarter 1985	11.93	22.39	98.00	104.27	93.71
3rd Quarter 1985	11.58	21.74	103.00	111.03	91.67
4th Quarter 1985	11.43	21.57	106.67	124.85	90.70
1985	11.71	21.89	101.25	112.54	90.99
1984	12.22[r]	20.81	93.33	103.85	87.29

Private Label	Producer-Processor Spread	Processor-Bakery Spread	Bakery-Retail Spread	Processor-Retail Spread	Producer Retail Spread
1st Quarter 1985	9.99	75.46	12.66	88.12	98.10
2nd Quarter 1985	10.46	75.61	6.27	81.88	92.34
3rd Quarter 1985	10.15	81.26	8.03	89.29	99.45
4th Quarter 1985	10.14	85.10	18.19	103.29	113.42
1985	10.19	79.36	11.29	90.65	100.83
1984	8.59[r]	72.52	10.52	83.04	91.63[r]
Store Label					
1st Quarter 1985	9.99	N/A	N/A	66.02	76.00
2nd Quarter 1985	10.46	N/A	N/A	71.32	81.78
3rd Quarter 1985	10.15	N/A	N/A	69.93	80.09
4th Quarter	10.14	N/A	N/A	69.13	79.27
1985	10.19	N/A	N/A	69.10	79.29
1984	8.59[r]	N/A	N/A	66.48	75.07[r]

Private Label	Producer's Share	Processor's Share	Wholesale/Baker's Share	Retailer's Share
1st Quarter 1985	10.8	9.1	68.6	11.5
2nd Quarter 1985	11.4	10.0	72.5	6.0
3rd Quarter 1985	10.5	9.2	73.2	7.2
4th Quarter 1985	9.2	8.1	68.2	14.6
1985	10.5	9.1	70.6	9.8
1984	11.8[r]	8.2	69.8	10.1
Store Label				
1st Quarter 1985	13.5	11.4	N/A	75.1
2nd Quarter 1985	12.8	11.2	N/A	76.1
3rd Quarter 1985	12.6	11.1	N/A	76.3
4th Quarter 1985	12.6	11.2	N/A	76.2
1985	12.9	11.2	N/A	75.9
1984	14.0[r]	9.8	N/A	76.2

N/A - Not Applicable

[1] Totals may not add due to rounding

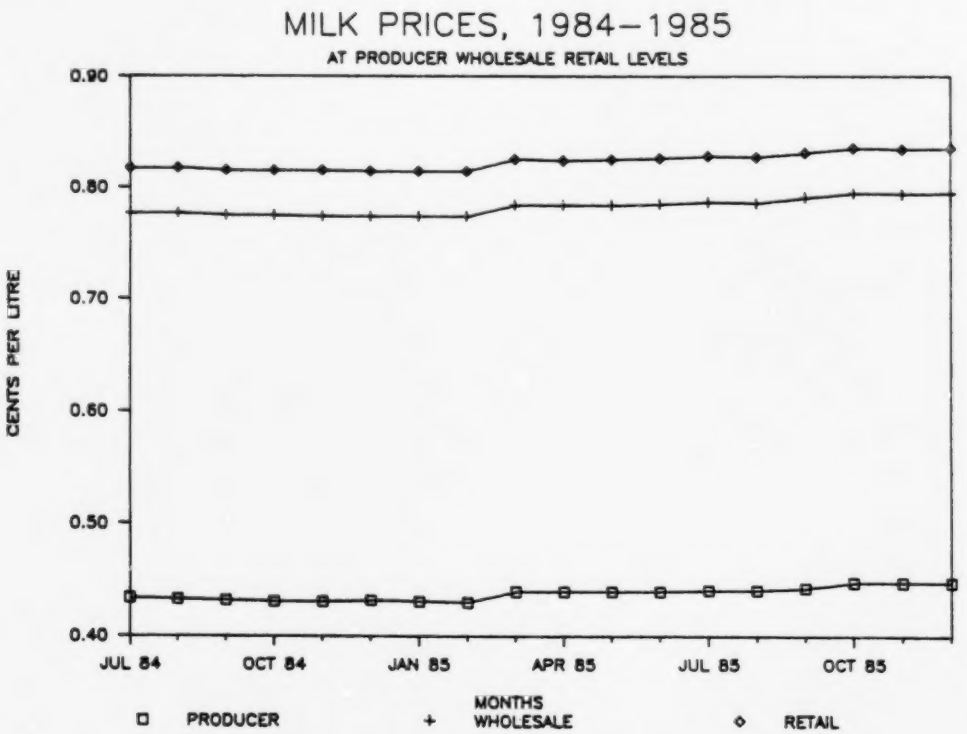
[r] Revised

MILK

Prices

Milk prices at producer, wholesale and retail levels are shown in Graph 3. The prices on the graph correspond directly to minimum prices set by the Public Utilities Board (PUB) but have been adjusted to a retail equivalent basis. Prices increased at all three levels, March 1 and September 1, 1985. Producer, wholesale and retail prices increased 0.98¢, 1.0¢ and 1.0¢/litre respectively in March and a further 0.98¢, 1.0¢ and 1.0¢ respectively in September. For the calendar year 1985, producer prices averaged 44.1¢/litre increasing 1.5¢/litre (+3.5%) from 1984 (Table 3). Wholesale prices average 78.6¢/litre, up 1.8¢/litre (+2.3%) and retail prices average 82.7¢/litre, up 1.9¢/litre (+2.4%) from 1984.

GRAPH 3



As minimum prices are regulated by PUB, the magnitude of price fluctuations between PUB price increases are small. At the producer level, to adjust producer prices to a retail equivalent basis, the value of butterfat produced surplus to fluid milk requirements is subtracted. Surplus butterfat goes towards the manufacture of butter and cheese. As the surplus butterfat is eventually a by-product of fluid milk manufacturing the value of the butterfat used in the manufacture of other dairy products must be deducted from the producer price to derive

a retail equivalent price. The value of surplus butterfat subtracted fluctuates with:

1) changes in consumer demand for the type of milk product which affects the quantity of total butterfat consumed in milk products;

2) the amount of butterfat produced per hectolitre of milk on farms and;

3) the butterfat differential (i.e. the price of butterfat) paid or deducted per 0.1 kg butterfat.

Spreads and Share

Table 3 shows the distribution of the consumer's milk dollar. The producer-wholesale spread increased in 1985, averaging 34.6¢/litre, an increase of 1.2 per cent over 1984. The wholesaler's share as a per cent of retail prices averaged 0.5 percentage points lower at 41.8 per cent. The increase in the producer-wholesale spread of 1.2 per cent did not match the 2.4 per cent increase in retail prices, resulting in reduced wholesaler's share.

The wholesale-retail spread increased 2.5 per cent to 4.1¢/litre and the retailer's share of the consumer's dollar remained unchanged in 1985.

TABLE 3

QUARTERLY MILK PRICES[1], SPREADS AND SHARE, 1985[2]

(Dollars per litre)

	Producer Price		Wholesale Price		Retail Price	
	1984	1985	1984	1985	1984	1985
1st Quarter	.415	.434	.755	.777	.795	.818
2nd Quarter	.424	.440	.765	.784	.805	.825
3rd Quarter	.433	.442	.776	.788	.816	.829
4th Quarter	.431	.448	.774	.795	.815	.835
YEAR	.426	.441	.768	.786	.808	.827

	Producer Wholesale Spread		Wholesale-Retail Spread		Producer-Retail Spread	
	1984	1985	1984	1985	1984	1985
1st Quarter	.340	.344	.040	.040	.380	.384
2nd Quarter	.342	.344	.040	.041	.382	.385
3rd Quarter	.344	.347	.040	.041	.384	.387
4th Quarter	.343	.347	.040	.040	.383	.387
YEAR	.342	.346	.040	.041	.382	.386

	Producer's Share		Wholesaler's Share		Retailer's Share	
	1984	1985	1984	1985	1984	1985
	%	%	%	%	%	%
1st Quarter	52.2	53.0	42.8	4.21	5.0	4.9
2nd Quarter	52.6	53.3	42.5	41.7	5.0	5.0
3rd Quarter	53.0	53.3	42.2	41.9	4.9	4.9
4th Quarter	52.9	53.6	42.1	41.6	5.0	4.8
YEAR	52.7	53.3	42.3	41.8	5.0	5.0

1 Retail equivalent prices at producer and wholesale levels.
2 Totals may not add due to rounding.

PORK

Prices

Producer, wholesale and retail pork prices on a retail equivalent basis are shown in Graph 4. Prices at the producer and wholesale level followed the same trend in 1985, rising in the first quarter then falling in the second and rising in the third and fourth quarters. However, average retail prices (Edmonton and Calgary) increased steadily through the year.

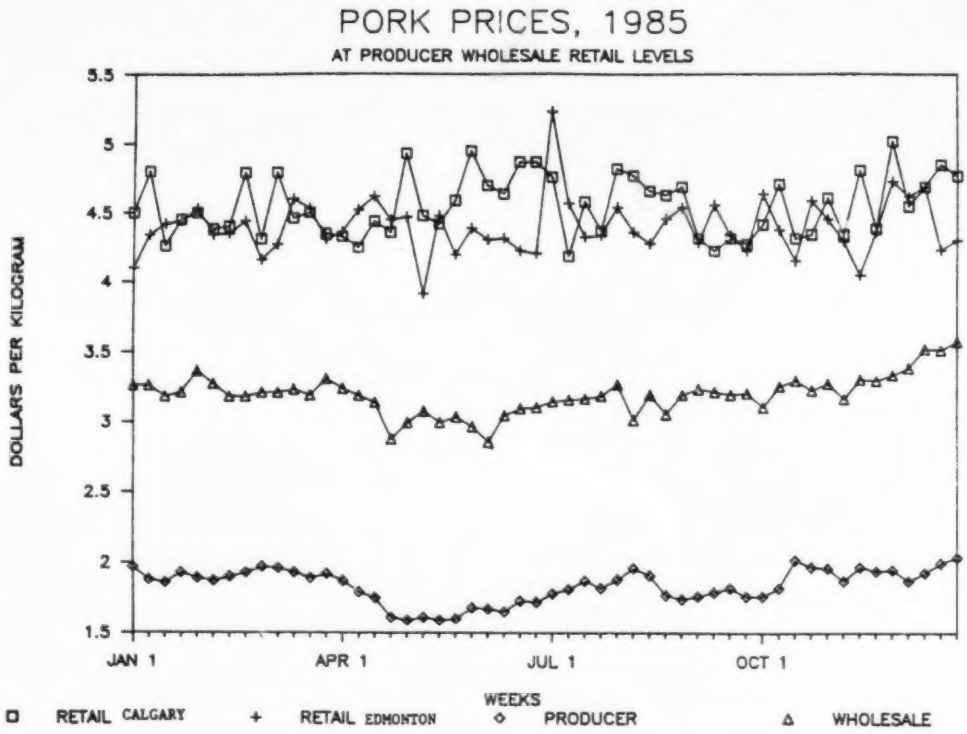
Both second and third quarter prices at the producer and wholesale level were significantly lower than the comparable period in 1984. This prompted the introduction of the Alberta Red Meat Interim Insurance Program as a stop-gap measure until the Tripartite Red Meat Stabilization program was finalized. However, total payments received by hog producers under the Alberta program are not indicated in Graph 4. The Alberta Pork Producers Market Insurance Plan was discontinued at the end of 1984.

Imposition of countervailing duties on live hog exports to the U.S. forced producer prices down in the second and third quarters of 1985. The demand for alternative competing meats such as beef and poultry also adversely affected the demand for pork. Price differentials between U.S. and Alberta markets were much wider in 1985 than in 1984. Through all this however, retail prices of pork were trending upward in 1985 with the spread between retail and producer prices widening. The relative increase in pork prices to the consumer impacted negatively on pork demand and further exacerbated the downward price pressure on producer prices. However, a seasonal reduction in U.S. output in the fourth quarter and narrowing price differentials helped pull up producer prices in late 1985.

Producer and wholesale prices averaged lower than in 1984 while average retail prices were higher. Average producer prices declined 4.2 per cent to $1.84/kg. Wholesale prices averaged $3.20/kg, down 0.9 per cent while average retail prices increased 2.8 per cent to $4.48/kg.

In 1985, retail pork prices in Calgary were consistently higher than in Edmonton.

GRAPH 4



Price Spreads and Shares

The producer-wholesale spread widened in 1985. On an annual average basis, the spread increased $0.05/kg to $1.36/kg. Wholesale-retail spreads also rose during 1985. For the year, the spread rose $0.15/kg to 1.28/kg. Producer-retail spreads increased significantly in 1985 going from $2.44/kg to $2.64/kg.

As a percentage of the consumer's dollar, the average producer share declined from 44 per cent to 41 per cent in 1985. The wholesaler's share increased marginally from 30 per cent to 30.4 per cent while the retailer's share increased from 26 per cent to 28.6 per cent.

Although there were changes in individual producer, wholesale and retail shares between quarters, a decline in share of one participant was unequally split by the other two participants. For example, a decline in producer share from the first quarter to the second quarter of 5.8 percentage points resulted in an increase in wholesaler's and retailer's shares of 0.9 percentage points and 4.8 percentage points respectively.

TABLE 4

QUARTERLY PORK PRICES[1], SPREADS AND SHARE, 1985[2]

(Dollars per kilogram)

	Producer Price		Wholesale Price		Retail Price			
	1984	1985	1984	1985	1984	1985	1985 Edm.	1985 Cal.
1st Quarter	1.80	1.92	3.08	3.23	4.15	4.44	4.37	4.50
2nd Quarter	1.89	1.68	3.13	3.05	4.24	4.47	4.35	4.60
3rd Quarter	2.10	1.82	3.46	3.18	4.60	4.49	4.47	4.51
4th Quarter	1.88	1.93	3.24	3.33	4.44	4.51	4.43	4.60
YEAR	1.92	1.84	3.23	3.20	4.36	4.48	4.40	4.55

	Producer Wholesale Spread		Wholesale-Retail Spread		Producer-Retail Spread	
	1984	1985	1984	1985	1984	1985
1st Quarter	1.29	1.32	1.07	1.20	2.36	2.52
2nd Quarter	1.24	1.37	1.11	1.42	2.35	2.79
3rd Quarter	1.36	1.36	1.14	1.31	2.50	2.67
4th Quarter	1.36	1.40	1.19	1.18	2.56	2.58
YEAR	1.31	1.36	1.13	1.28	2.44	2.64

	Producer's Share		Wholesaler's Share		Retailer's Share	
	1984	1985	1984	1985	1984	1985
1st Quarter	43.2	43.3	31.1	29.7	25.8	27.0
2nd Quarter	44.6	37.5	29.2	30.6	26.2	31.8
3rd Quarter	45.6	40.6	30.0	30.3	24.8	29.2
4th Quarter	42.4	42.7	30.6	31.0	26.8	26.2
YEAR	44.0	41.0	30.0	30.4	26.0	28.6

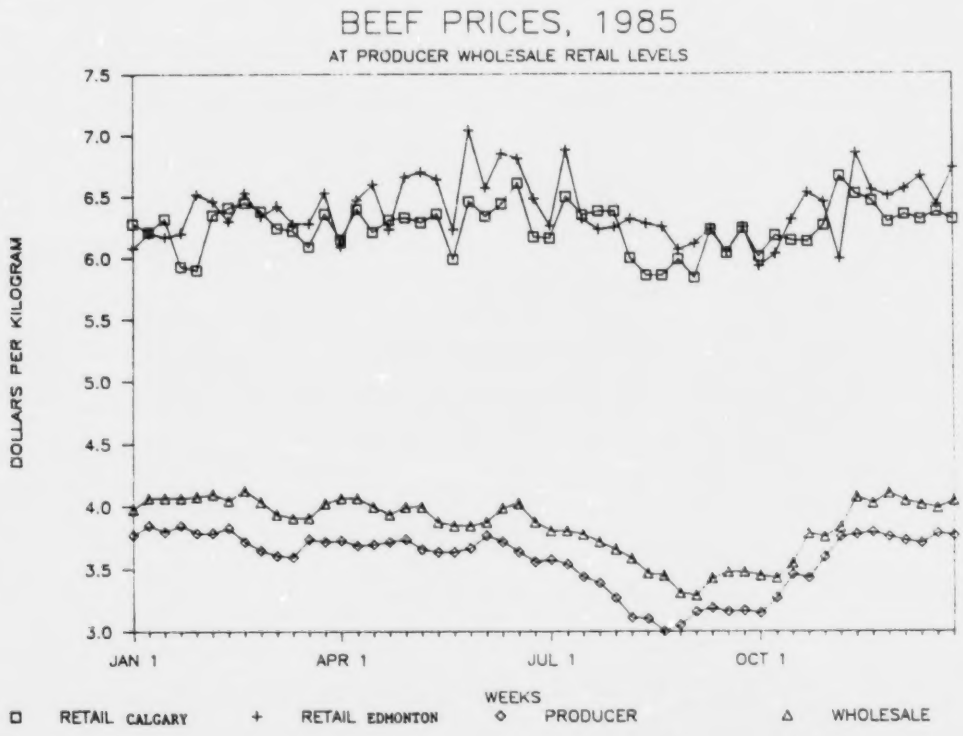
1
2 Retail equivalent prices at producer and wholesale levels.
Totals may not add due to rounding.

BEEF

Prices

Alberta cattle and beef prices increased in the first quarter of 1985 from the last quarter in 1984, primarily due to higher domestic bids caused by a lower U.S./Canada exchange rate. However, prices declined at the producer and wholesale levels as a result of large supplies of beef and other competing meats. Prices recovered to 1984 levels in the fourth quarter of 1985 when Alberta output was significantly reduced. Payments made to producers under the Red Meat Stabilization Program are not represented in Graph 5.

GRAPH 5



Producer and wholesale prices were lower in 1985 than in 1984, while retail prices were significantly higher. Producer prices increased 4.5 per cent in the first quarter compared to the same period in 1984. However, they declined 9.2 per cent in the second and third quarters before recovering in late 1985. Wholesale prices followed a similar trend. Compared to 1984, the annual average producer price was 0.6 per cent lower at $3.56/kg and the wholesale price was 1.0 per cent

lower at $3.84/kg. Retail prices (average of Edmonton and Calgary) increased 3.9 per cent in 1985 ($6.33/kg), showing a significant increase in the first and second quarters before dropping slightly in the third quarter, then recovering in the fourth quarter. Except for brief periods during the year, retail prices in Edmonton were consistently higher than in Calgary.

Price Spreads and Shares

Producer-wholesale spreads were similar to 1984 except in the third quarter when they were 23.8 per cent lower. The producer-wholesale spread averaged $0.28/kg, 6.7 per cent lower than in 1984.

Wholesale-retail spreads increased in the first three quarters of the year before declining in the fourth quarter. The 1985 average wholesale-retail spread was $2.49/kg, 12.7 per cent above the 1984 average.

Producer-retail spreads were consistently higher than in 1984. The annual average producer-retail spread was $2.76/kg, up 10.0 per cent over 1984.

The producer's share of the consumer's dollar spent on beef increased in the first quarter before declining steadily the rest of the year. For the year, the producer's share declined to 56.3 per cent, 2.5 percentage points lower than in 1984.

The wholesaler's share also declined in 1985 over 1984 going from 4.9 per cent to 4.4 per cent.

The retailer's share was consistently higher in the last three quarters of 1985, averaging 39.3 per cent for the year, compared to 36.3 per cent in 1984.

TABLE 5

QUARTERLY BEEF PRICES[1], SPREADS AND SHARE, 1985[2]

(Dollars per kilogram)

	Producer Price		Wholesale Price		Retail Price			
	1984	1985	1984	1985	1984	1985	1985 Edm.	1985 Cal.
1st Quarter	3.59	3.75	3.85	4.03	5.88	6.29	6.33	6.24
2nd Quarter	3.67	3.68	3.94	3.96	6.11	6.44	6.57	6.31
3rd Quarter	3.49	3.24	3.91	3.56	6.29	6.21	6.27	6.14
4th Quarter	3.57	3.58	3.80	3.82	6.06	6.37	6.42	6.31
YEAR	3.58	3.56	3.88	3.84	6.09	6.33	6.40	6.25

	Producer Wholesale Spread		Wholesale-Retail Spread		Producer-Retail Spread	
	1984	1985	1984	1985	1984	1985
1st Quarter	.26	.28	2.03	2.26	2.29	2.54
2nd Quarter	.27	.28	2.17	2.48	2.44	2.76
3rd Quarter	.42	.32	2.38	2.65	2.80	2.97
4th Quarter	.23	.24	2.26	2.55	2.49	2.78
YEAR	.30	.28	2.21	2.49	2.51	2.76

	Producer's Share		Wholesaler's Share		Retailer's Share	
	1984	1985	1984	1985	1984	1985
1st Quarter	61.1	59.6	4.4	4.5	34.5	35.9
2nd Quarter	60.1	57.2	4.4	4.3	35.5	38.5
3rd Quarter	55.5	52.2	6.7	5.2	37.8	42.7
4th Quarter	58.8	56.3	3.9	3.8	37.3	40.0
YEAR	58.8	56.3	4.9	4.4	36.3	39.3

[1] Retail equivalent prices at producer and wholesale levels.
[2] Totals may not add due to rounding.